IN THE CLAIMS

Please amend the claims as follows:

Claims 1 - 62. (Canceled)

63. (Currently Amended) A trailer based collision warning system comprising:

a sensor;

a sensor control unit coupled to the sensor, the sensor control unit having a signal processor to determine a presence of a hazard and a controller to control multiple sensors, the sensor control unit capable of determining an object within a predetermined field of view for each sensor coupled thereto, and within a predetermined detection range;

a driver vehicle interface coupled to the sensor control unit, the driver vehicle interface configured to receive signals from the sensor control unit representative of objects determined by the sensor control unit;

an alarm unit coupled to the driver vehicle interface capable of providing a representation of objects detected by the sensor control unit, wherein the trailer based collision warning system is adapted for mounting to a trailer; and

~~The trailer based collision warning system of claim 43, further including~~

a security feature built into the driver vehicle interface that utilizes existing collision warning sensors of one or more types along with additional sensors capable of determining alarm conditions, wherein the alarm conditions include unauthorized opening of trailer doors, unauthorized opening of fluid valves, unauthorized movement of the trailer, and movement of persons in close proximity to the trailer for a preprogrammed period of time.

64. (Original) The trailer based collision warning system of claim 63, wherein the security alarm unit has a security mode activated with a key switch mounted on the side of the trailer.

65. (Original) The trailer based collision warning system of claim 64, wherein when an alarm condition is detected, a high volume audible alarm is sounded for a period of approximately 30 seconds once every five minutes until the alarm condition is eliminated or the

key switch mounted on the side of the trailer is turned off, the audible alarm on/off periods of time being programmable.

66. (Original) The trailer collision warning system of claim 63, further including a wireless communication system coupled to the security alarm unit, wherein the security alarm unit upon determining an alarm condition automatically activates the wireless communication system to transmit a security alarm code to a land-based terminal.

67. (Previously Presented) A trailer based collision warning system comprising:

a first sensor control unit having at least one sensor coupled thereto, the first sensor control unit having a first signal processor to determine a presence of a hazard and a first controller to control multiple sensors, the first sensor control unit capable of determining an object within a predetermined field of view for each sensor coupled thereto, and within a predetermined detection range;

a first driver vehicle interface coupled to the first sensor control unit, the first driver vehicle interface configured to receive signals from the first sensor control unit representative of objects determined by the first sensor control unit;

a second sensor control unit having at least one sensor coupled thereto, the second sensor control unit having a second signal processor and a second controller to control multiple sensors, the second sensor control unit capable of determining an object within a predetermined field of view for each sensor coupled thereto, and within a predetermined detection range;

a second driver vehicle interface coupled to the second sensor control unit, the second driver vehicle interface configured to receive signals from the second sensor control unit representative of objects determined by the second sensor control unit, the second driver vehicle interface coupled to the first driver vehicle interface;

an alarm unit coupled to the first driver vehicle interface capable of providing a visual representation of objects determined by the first and second sensor control units, wherein the trailer based collision warning system is adapted for mounting to a trailer.

68. (Original) The trailer based collision warning system of claim 67, wherein the

predetermined detection range is programmable for each sensor.

69. (Original) The trailer based collision warning system of claim 67, wherein the system includes:

a sensor to determine the speed of the trailer,

a detector to determine that the trailer is slowing down, and

a brake light interface to activate the brake lights on the trailer when the trailer is slowing down.

70. (Original) The trailer based collision warning system of claim 67, wherein the first driver vehicle interface and the first sensor control unit perform a built-in test function, and the second driver vehicle interface and the second sensor control unit perform a built-in test function each time power is applied to the trailer based collision warning system and continue to perform built-in test functions while the trailer based collision warning system is in operation, and wherein a malfunction in the trailer based collision warning system is reported by the first driver vehicle interface through the alarm unit.

71. (Original) The trailer based collision warning system of claim 67, wherein the first sensor control unit, the first driver interface unit and the alarm unit are adapted for mounting to a first trailer, wherein the second sensor control unit, and the second driver interface unit are adapted for mounting to a second trailer when the first trailer and the second trailer are coupled together.

72. (Original) The trailer based collision warning system of claim 71, wherein the first driver interface unit is coupled to the second driver interface unit by a tractor trailer cable coupled between the first trailer and the second trailer used to provide power and turn indications with additional signals passed between the first and second driver interface units using power line carrier interface circuits coupled to the vehicle battery power wiring.

73. (Original) The trailer based collision warning system of claim 67, wherein the first driver vehicle interface communicates with the second driver vehicle interface using wireless data transceivers mounted in each driver vehicle interface.

Claims 74 - 83. (Canceled)

84. (New) The trailer based collision warning system of claim 63, wherein the predetermined detection range is programmable for each sensor.

85. (New) The trailer based collision warning system of claim 63, wherein the system includes:

a sensor to determine the speed of the trailer,

a detector to determine that the trailer is slowing down, and

a brake light interface to activate the brake lights on the trailer when the trailer is slowing down.

86. (New) The trailer based collision warning system of claim 63, wherein the driver vehicle interface and the sensor control unit perform a built-in test function each time power is applied to the trailer based collision warning system and continue to perform built-in test functions while the trailer based collision warning system is in operation, and wherein a malfunction in the trailer based collision warning system is reported by the driver vehicle interface through the alarm unit.

87. (New) The trailer based collision warning system of claim 63, wherein the driver interface unit includes a processor and memory for directing the sensor control unit, receiving information from the sensor control units, and controlling the alarm unit.

88. (New) The trailer based collision warning system of claim 63, wherein the alarm unit includes units capable of providing visual and audio representations of objects determined by the sensor control unit.

89. (New) The trailer based collision warning system of claim 63, further including a direction of motion sensor to provide direction information to the sensor control units or the driver vehicle interface.

90. (New) The trailer based collision warning system of claim 89, wherein the direction of motion sensor is adapted for sensing the direction of rotation of a trailer axle or a trailer wheel.

91. (New) The trailer based collision warning system of claim 89, wherein the direction of motion sensor is a Hall effect sensor.

92. (New) The trailer based collision warning system of claim 63, further including a black box recorder coupled to the driver vehicle interface for recording information about the trailer.

93. (New) The trailer based collision warning system of claim 92, further comprising a G-Force switch coupled to the black box for detecting a collision, and a rollover sensor coupled to the black box for detecting a rollover condition, wherein the recording of information is automatically terminated by a collision or by a rollover condition.

94. (New) The trailer based collision warning system of claim 92, wherein the information recorded includes status of the trailer based collision warning system, status of individual components of the trailer based collision warning system, and location and rate of closure information for all objects near the trailer.

95. (New) The trailer based collision warning system of claim 92, wherein the information recorded includes information recorded for a predetermined period of time before a collision.

96. (New) The trailer based collision warning system of claim 95, wherein the predetermined period of time is programmably set in the black box recorder.

97. (New) The trailer based collision warning system of claim 95, wherein the predetermined period of time for which information is stored before a collision is about four minutes.

98. (New) The trailer based collision warning system of claim 63, further including a wireless communication system coupled to the driver vehicle interface capable of transmitting and receiving information related to the trailer to which the trailer based collision warning system is mounted.

99. (New) The trailer based collision warning system of claim 98, wherein the information transmitted by the wireless communication system includes status of the trailer based collision warning system, status of individual components of the trailer based collision warning system, driver performance information, near-accident data, or actual accident data.

100. (New) The trailer based collision warning system of claim 99, wherein the wireless communication system is configurable for transmitting the information to a predetermined location on demand, at specific time intervals, or based on predetermined events.

101. (New) The trailer based collision warning system of 99, wherein the information is stored in the memory of the driver vehicle interface or in a black box recorder coupled to the driver vehicle interface.

102. (New) The trailer based collision warning system of 98, wherein the wireless communication system includes a processor and memory for storing information related to the trailer, driver performance, near-accident data, or actual accident data.